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ABSTRACT

Studies conducted concerning numbers of limited-English-speaking-ability (LESA) students and utility of criteria for estimating this population are discussed. A sample of 287 students in kindergarten through grade three, whose parents had responded to a Language Resource Questionnaire, were selected for study. The teacher of each student was administered the Language Resource Questionnaire for Teachers, which concerned the student's ability to use and understand English in the classroom. Each student was administered the Shutt Primary Language Indication Test to assess their proficiency in English and Spanish. The intercorrelations of key items on both questionnaires and subtests of the Shutt test were calculated. Key items on the parent questionnaire included whether the student was born outside the United States and whether the household language was other than English. Key items on the teacher questionnaire included the student's understanding of instruction in English and the student's ability to speak English. Key subtests on the Shutt test were listening comprehension in English, reading comprehension in English (third grade only), and English verbal fluency. (SW)

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Utility of LESA Criteria for Estimating
The Number of LESA Students

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Introduction

Problem

In planning to meet the needs of Limited-English-Speaking-Ability (LESA) students one of the major questions is "How many LESA students are there to be served?" This is to say "How many students will best be served by programs involving bilingual instruction?" A related question is "Which students should be enrolled in such programs?"

Background

To address such questions at the national level items were developed and added to census studies (Survey of Income and Education; Current Population Survey) (see Silverman, 1976; Language Usage in the United States: July, 1975; Waggoner, 1976; 1978). These items concerned (1) whether an individual was born outside the United States, (2) whether an individual came from a home in which English was not the dominant language, and (3) how well an individual understands or speaks English.

Study

This paper reports studies conducted in the Houston Independent School District (HISD) to determine the number of LESA students to be served and the usefulness of questions, such as whether a student was born outside the United States, in estimating the number of students to be served.

Method

Subjects

A sample of 287 HISD students in grades K through 3, whose parents had responded to a Language Resource Questionnaire, were selected for this study. This sample was part of a larger sample selected to estimate the number of LESA students in HISD by various definitions of LESA students (see Alston, 1977). Of these 287 students, 46% were male and 54% were female; 10% were Anglos, 11% were Black and 79% were Hispanic; and 44, 77, 82, 84 were in grades K through 3 respectively.

Instruments

The parent of each student had been administered a Language Resource Questionnaire (see appendix) which included items from the census studies. The teacher of each student was administered a questionnaire (Language Resource Questionnaire for Teachers of HISD Students - see appendix) concerning the student's ability to use and understand English in the classroom. Each student was administered the Shutt Primary Language Indication Test (SPLIT) (Shutt, 1976) to assess their proficiency in English and Spanish. Due to various problems, scores on both questionnaires and the test were not available on all 287 students.

Analyses

correlations

The intercorrelations of key items on both questionnaires and subtests of the Shutt test were calculated. The type of correlation computed depended on the level of measurement of the two variables being correlated (Nie, et al., 1975).

Key items on the parent questionnaire concerned whether the student was born outside the United States (PQ1), whether the household language was other than English (PQ2), and how well the student understood his/her teacher in English (PQ3). Key items on the teacher questionnaire concerned the student's understanding of instruction in English (TQ1), the student's ability to speak English (TQ2), and the teacher's overall rating of the student's ability to understand and speak English (TQ3). Key subtests on the Shutt test were Listening Comprehension in English, Reading Comprehension in English (third grade only), and English Verbal Fluency.

percentages

The percentages of agreement in rating a student as a LESA student between the parent and teacher questionnaire items were calculated, as well as the percentage of students who scored below the 25th percentile on a subtest of the SPLIT test.

RESULTS

The estimated number of LESA students in HISD in grades K through 3, as defined by various criteria, is presented in a paper by Alston (1977). The number of students identified as LESA students varies widely depending on the criteria chosen. For example, based on parental responses, 3.2% of the first grade students were born outside the United States, 8.9% of the first grade students came from a home in which English was not the dominant language, 2.6% were rated as having difficulty in understanding instruction in English, and 10.2% met at least one of these criteria.

As can be seen in Table 1, the intercorrelations of the key parent items were moderate but the correlation of the parent items with the teacher rating items and the SPLIT subtest scores were small or insignificant. The small size of these correlations is in part an artifact of the restricted range of some of the variables (e.g., only about 11% of the matched sample were born outside the United States and this reduced the size of any variable correlated with this variable). The percentages reported in the next section help to interpret the agreement among these definitions of LESA students.

As can be seen in Table 2, of the students born outside the United States (PQ1), 76% were rated by their parents as coming from a home in which English was not the dominant language (PQ2), 21% were rated by their parents as having difficulty in understanding classroom instruction in English (PQ3), 10% were rated by their teachers as having difficulty in understanding instruction in English (TQ1), 20% were rated by their teachers as not being adequately able to express themselves in English (TQ2), and 25% were rated by their teachers as having difficulty in understanding English (TQ3). Too few of the students who were born outside of the United States were administered the SPLIT test to report those percentages.

Of the students whose home language was other than English (PQ2), 15% were rated by their parents as having difficulty in understanding classroom instruction in English (PQ3), 2.4% were rated by their teachers as having difficulty in understanding instruction in English and in speaking English (TQ3), 2.4% scored below the 25th percentile on the SPLIT test of Listening Comprehension in English, 0% scored below the 25th percentile on the SPLIT test of Reading Comprehension (3rd grade students only), and 5% or less scored below the 25th percentile on the SPLIT test of Verbal Fluency in English.

Of the seven students who were rated by their parents as having difficulty in understanding instruction by their teacher in English (PQ3), on whom teacher ratings were available, only one was rated by the teachers as a LESA student.

In brief, the correlations of the LESA criteria were moderate to zero, and the percentage agreement varied from 76% to zero with a median value of 14%. The correlations and percentages are based on too small a sample to be considered very reliable, but illustrate the lack of agreement among these criteria and the lack of utility of these criteria for estimating the number of LESA students.

Disucssion

The limitations of this study should be made clear. The larger study (Alston, 1977) involved a representative sample of students in grades K through 3 and the size of that sample (approximately 1,900 students) was reasonable for estimating the percentage of LESA students by grade level. This study of LESA criteria is based on a subsample of less than 300 students and is less representative of students in HISD in grades K through 3. The implications of the results seem clear but the actual correlations and percentages reported should not be considered reliable.

The major implication of this study is that the definitions used to define LESA students in the census studies are not a reasonable way of determining the number of individuals who need special programs such as bilingual education, and these definitions, although they are useful along with other information for identifying students for programs (see Mauldin and Alston, 1979), are not an appropriate way of defining which students need bilingual instruction (see LAU Remedies).¹ In hindsight, it is obvious that not all students born outside the U.S. or all students who come from a home in which English is not the language are LESA students.

¹For information gathered using these definitions of LESA students, one may determine what percentage of such groups would need particular types of programs, and use these revised estimates for program planning purposes (see Irwin, 1977). For example, if it were found that 50% of students who came from a home in which English was not the dominant language needed bilingual instruction, then the number of students estimated to need such programs would be 50% of the number estimated from such a census item.

TABLE I
Intercorrelation of LESA Criteria

Independent Variable	Dependent Variable	Sample Size	Correlation		Significances Level
PQ1 (born outside the U.S.)	PQ2 (home language other than English)	n=264	Cramer's V=.441		p .01
	PQ3 (Understanding of teacher in English)	n=263	eta =	.316	p .01
	TQ1 (Understanding of instruction in English)	n=203	eta =	.295	p .01
	TQ2 (Ability to speak English)	n=202	eta =	.289	p .01
	TQ3 (Ability to understand and speak English)	n=201	eta =	.166	p .05
	SPLIT1 (Listening Comprehension in English)	n=178	eta =	.257	p .01
	SPLIT2 (Reading Comprehension in English)	n= 66	eta =	.011	NS
	SPLIT3 (English Verbal Fluency)	n=177	eta =	.058	NS
	PQ3 (Understanding of teacher in English)	n=262	eta =	.574	p .01
	TQ1 (Understanding of instruction in English)	n=202	eta =	.092	NS
PQ2 (Home Language other than English)	TQ2 (Ability to speak English)	n=201	eta =	.198	p .01
	TQ3 (Ability to understand and speak English)	n=200	eta =	.129	NS
	SHUTT1 (Listening in English)	n=177	eta =	.179	p .05
	SHUTT2 (Reading in English)	n= 66	eta =	.129	NS
	SHUTT3 (English Verbal Fluency)	n=176	eta =	.032	NS
	TQ1 (Understanding of instruction in English)	n=202	tau c =	.013	NS
	TQ2 (Ability to speak English)	n=201	tau c =	.057	NS
PQ3 (Understanding of instruction in English)	TQ3 (Ability to understand and speak English)	n=200	tau c =	.041	NS
	SHUTT1 (Listening in English)	n=177	eta =	.361	p .01
	SHUTT2 (Reading in English)	n= 66	eta =	.003	NS
	SHUTT3 (English Verbal Fluency)	n=176	eta =	.032	NS

TABLE 2
Percentage Agreement of LESA Criteria

VARIABLE	VARIABLE	PERCENTAGE AGREEMENT
PQ1 (born outside the U.S.)	PQ2 (Home Language other than English)	76%
PQ1	PQ3 (Understanding of teacher in English)	21%
PQ1	TQ1 (Understanding of instruction in English)	10%
PQ1	TQ2 (Ability to speak English)	20%
PQ1	TQ3 (Ability to understand and speak English)	25%
PQ2 (Home language other than English)	PQ3 (Understanding of teacher in English)	15%
PQ2	TQ1 (Understanding of instruction in English)	2.4%
PQ2	TQ2 (Ability to speak English)	14.6%
PQ2	TQ3 (Ability to understand and speak English)	12.8%
PQ2	SPLIT (Listening Comprehension in English)	2.4%
PQ2	SPLIT (Reading Comprehension in English)	0%
PQ2	SPLIT (Verbal Fluency in English)	5%

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APPENDIX

Key Items from Language Resource Questionnaire for Parents of HISD Students

PQ1

Was ... born in the United States?

(1) _____ Yes (skip to item 8) (2) _____ No

PQ2

What language do the people in this household usually speak here at home?

PQ3

Please tell me how much ... understands (his/her) teacher when the teacher is speaking English.

- (1) _____ Understands little or no English.
- (2) _____ Understands some English but not enough to understand his/her teacher in the classroom.
- (3) _____ Understands English but does not understand it as much as native English-speaking students of ...'s age.
- (4) _____ Understands English as much as native English-speaking students of ...'s age.

Key Items from Language Resource Questionnaire for Teachers of HISD Students.

TQ1

Please rate how much ... understands (his/her) teacher when the teacher is speaking English.

- 1. Understands little or no English.
- 2. Understands some English but not enough to understand his teacher in the classroom.
- 3. Understands English but does not understand it as much as native English-speaking students of ...'s age.
- 4. Understands English as much as native English-speaking students of ...'s age.

TQ2

Please rate how much English ... speaks.

- 1. Speaks little or no English.
- 2. Speaks some English but not enough to express himself in the class.
- 3. Speaks English but not as well as native English-speaking friends of the same age.
- 4. Speaks English as well as native English-speaking friends.

TQ3

To what extent do you agree with the following statement: "... has difficulty in understanding classroom instruction in the English language and in communicating with (his/her) teacher in English."

1. strongly agree 2. agree 3. undecided 4. disagree 5. strongly disagree

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